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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--------------------------------|-------------|----------------------|---------------------|------------------|
| 10/001,707 | 10/25/2001 | Theodore W. Houston | TI-31245 | 2956 |
| 23494 | 7590 | 08/03/2006 | EXAMINER | |
| TEXAS INSTRUMENTS INCORPORATED | | | PRENTY, MARK V | |
| P O BOX 655474, M/S 3999 | | | ART UNIT | |
| DALLAS, TX 75265 | | | PAPER NUMBER | |
| | | | 2822 | |

DATE MAILED: 08/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/001,707

Applicant(s)

HOUSTON, THEODORE W.

Examiner

MARK PRENTY

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 11 and 15-18 is/are rejected.
- 7) ☒ Claim(s) 5-10, 12-14 and 19-24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date October 25, 2001.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

This Office Action is in response to the papers filed on October 25, 2001.

Dependent claim 14 is objected to because it is seemingly inconsistent with independent claim 1, on which it depends. Specifically, independent claim 1 recites that the third portions extend through the insulating layer, but dependent claim 14 seemingly inconsistently recites that segments forming the third portions are formed on a side of the insulating layer. Claim 14 is also unclear in reciting a further run separate from the runs of the group. Correction and/or clarification are required.

Claims 1-4, 11 and 15-18 are rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent 5,841,688 to Sukegawa et al. (Sukegawa).

As to independent claim 1, Sukegawa discloses an apparatus comprising an integrated circuit (see the entire patent, including the Figs. 5A-5C disclosure) which includes: an insulating layer; and a group of at least two elongate runs (the word lines) which are electrically conductive, which are electrically separate from each other, which each extend approximately in a direction, and which each have along the length thereof alternating first and second portions that are electrically coupled by third portions, said first portions of said runs being located on a side of said insulating layer opposite from said second portions thereof, and said third portions having sections which extend through said insulating layer; wherein for substantially each point along each of said first and second portions of each of said runs, a plane perpendicular to said direction and containing that point intersects a respective different point of every other said run, each pair of adjacent said points in said plane being points which are respectively located on opposite sides of said insulating layer.

Claim 1 is thus rejected under 35 U.S.C. 102(b) as being anticipated by Sukegawa.

As to dependent claim 2, for each of Sukegawa's runs, a cumulative amount of material in said first portions thereof conforms to a predetermined ratio in relation to a cumulative amount of material in said second portions thereof.

Claim 2 is thus rejected under 35 U.S.C. 102(b) as being anticipated by Sukegawa.

As to dependent claim 3, Sukegawa's predetermined ratio is substantially 1:1.

Claim 3 is thus rejected under 35 U.S.C. 102(b) as being anticipated by Sukegawa.

As to dependent claim 4, Sukegawa's runs each extend substantially parallel to said direction and substantially parallel to each other along the entire length thereof.

Claim 4 is thus rejected under 35 U.S.C. 102(b) as being anticipated by Sukegawa.

As to dependent claim 11, Sukegawa's integrated circuit includes an array of memory cells (see Figs. 3-4), each of said cells being electrically coupled to one of said runs.

Claim 11 is thus rejected under 35 U.S.C. 102(b) as being anticipated by Sukegawa.

As to independent claim 15, Sukegawa discloses a method of making an integrated circuit (see the entire patent, including the Figs. 5A-5C disclosure) having an insulating layer and a group of at least two elongate runs (the word lines) which are

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electrically conductive, which are electrically separate from each other, and which each extend approximately in a direction, comprising the steps of: configuring each of said runs to have along the length thereof alternating first and second portions that are electrically coupled by third portions; locating said first portions of each of said runs on a side of said insulating layer opposite from said second portions thereof in a manner so that, for substantially each point along each of said first and second portions of each of said runs, a plane perpendicular to said direction and containing that point intersects a respective different point of every other said run, each pair of adjacent said points in said plane being points which are respectively located on opposite sides of said insulating layer; and fabricating conductive sections which each extend through said insulating layer, each of said third portions including one of said sections.

Claim 15 is thus rejected under 35 U.S.C. 102(b) as being anticipated by Sukegawa.

As to dependent claim 16, Sukegawa's configuring step includes the step of configuring said first and second portions so that, for each said run, a cumulative amount of material in said first portions thereof conforms to a predetermined ratio in relation to a cumulative amount of material in said second portions thereof.

Claim 16 is thus rejected under 35 U.S.C. 102(b) as being anticipated by Sukegawa.

As to dependent claim 17, Sukegawa's predetermined ratio is 1:1.

Claim 17 is thus rejected under 35 U.S.C. 102(b) as being anticipated by Sukegawa.

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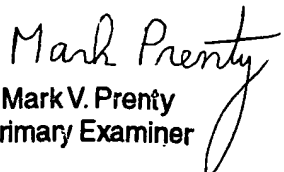
As to dependent claim 18, Sukegawa routes its runs so that they each extend substantially parallel to said direction and substantially parallel to each other along the entire length thereof.

Claim 18 is thus rejected under 35 U.S.C. 102(b) as being anticipated by Sukegawa.

Claims 5-10, 12, 13 and 19-24 are objected to as being dependent upon a rejected base claim, but would be allowable over the prior art of record if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record does not disclose or suggest the allowable apparatus comprising an integrated circuit taken as a whole, including the elongate runs.

Registered practitioners can telephone the examiner at (571) 272-1843. Any voicemail message left for the examiner must include the name and registration number of the registered practitioner calling, and the Application/Control (Serial) Number. Technology Center 2800's general telephone number is (571) 272-2800.


Mark V. Prenty
Primary Examiner